Department of Civil and Environmental Engineering Course Equivalencies (CEs)

**Department Approved 11/17/2022**

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For Tenure-track faculty, see the Variable Workload Guidelines which address thesis supervision

* This course equivalency policy for the Department of Civil and Environmental Engineering is based on the faculty’s desire to maintain delivery of a rigorous and experiential curriculum to our students while allowing adequate time for high quality research and meaningful service.
* This policy applies to all forms of instruction including: (1) in-person, remote (synchronous), online (asynchronous) and hybrid forms of delivery; (2) courses with lecture, discussion, laboratory and/or studio components; and (3) pedagogical techniques such as active-learning, project-based, service-learning, communication-intensive, etc.
* This policy applies to courses taught by the departmental faculty with CEE, ENGR and CEMS prefixes.
* Each faculty member is expected to teach at least one required undergraduate course per year.
* A faculty member is expected to update courses they teach routinely and may have a new course preparation once every two to three years. An extra 0.5 course equivalency in rare occasions may be given for preparing and teaching a new required undergraduate course, which has not been offered in the department before and involves a significant active/project-based/service-learning component. This accommodation is not applicable in instances where a faculty member already has a reduced teaching load during their probationary period.
* Note that externally funded research may provide a course release from the annually agreed upon workload arrangement. Any releases need to be discussed and approved by the Chair the Spring prior to a given academic year. Faculty should reference the [CEMS Faculty Workload and Teaching Policy](https://www.uvm.edu/sites/default/files/media/CEMS_Faculty_Workload_and_Teaching_Policy_November_2016.pdf) for buyout details. In addition, the Department follows the Variable Workload Guidelines (see Appendix) when assigning total teaching load for tenure track faculty.
* In general, a course equivalency of 1.0 represents 12% effort.
* In general, a 1.0 course equivalency equates to a lecture-based, 3-credit 1XXX through 7XXXcourse section that is run (generally requires meeting minimum enrollment, which is typically 15 for courses at and below 4XXX level and 5 at and above 5XXX level). Project-based and/or active-learning courses typically receive a partial GTA support, and with that, are typically assigned the same course equivalency as an equivalent lecture-based course.
* Course equivalencies of 1-, 2-, 3- and 4-credit courses with laboratory components are generally determined by the Chair based on the number of laboratory sections, method of delivery, and provided support (e.g. graduate teaching assistants, lab assistants). Most courses with a laboratory component typically receive some GTA support. A 4-credit course (e.g., CEE 2000, CEE 3530) taught as a single section with a 1-credit embedded lab is typically a course equivalency of 1.33. A 2-credit lab course with a recitation and three lab sections (e.g., CEE 3610, CEE 3810) is typically a course equivalency of 1.0.
* Independent study courses have no course equivalence but are classified as supplemental work and shall be accommodated as outlined in the Collective Bargaining Agreement: by adjusting the workload of the faculty member.
  + Graduate: IS courses will count towards the research workload
  + Undergraduate: IS courses must be approved by the Dean. If necessary for a student to graduate, such courses can be result in reduced advising or service load.
* MS/PhD theses have no course equivalence but count towards advising or research and can result in adjusted teaching workload per the variable workload guidelines in the appendix.
* Senior/honors thesis supervision for TT faculty are considered part of scholarship. For NTT faculty, they have a 0.1 course equivalency and must be approved by the Dean.
* The department’s philosophy is to offer courses of small enough size that facilitate effective interaction among students and the instructor(s) while meeting the department’s obligation to deliver the undergraduate and graduate curricula including service courses. In cases where the enrollment is over 80, a 3-credit course will be 2.0 course equivalency.
* Faculty who teach more than 700 student credit hours (SCH) on load calculated after the add drop date in a single semester, will be provided with a one-course equivalency the following semester which will count as an overload. If a faculty member is teaching overloads in the semester where they are over 650 students, only those SCH on load are considered.

**Appendix - Tenured and Tenure-Track Faculty Workload Guidelines**

# Introduction

Although there are multiple definitions for the term workload, it is most often defined as the amount of work to be performed in a given period of time. Given the mission of a university is the creation and dissemination of knowledge, the work to be done is primarily research and teaching and the time span, is assumed to be an academic year. Formally, workload for tenured and tenure-track faculty at UVM is subdivided into teaching, academic advising, research and scholarship, and service per the collective bargaining agreement (Article 16.4). The Department Chair is responsible for assigning faculty workloads annually, subject to approval by the Dean. The Department is committed to supporting the teacher-scholar model for its faculty. Each tenured and tenure-track faculty member is expected to be both an effective teacher in their sub discipline and active scholar in their research area, complemented by university and professional service. The Department also supports the overarching expectation and responsibility of faculty in their commitment to continued development and application of practices that foster diversity and inclusion and the values of *Our Common Ground*[[1]](#footnote-1). The following workload guidelines have been developed to support these goals.

# Teaching

The teaching load should support effective teaching, which is critical to the department’s mission. A major component of the teaching load is defined in terms of courses taught per year. However, in engineering the teaching load also includes a significant amount of graduate and undergraduate student research supervision. It is the totality of these efforts that constitutes the teaching load. Based upon our research, a typical base teaching load for a research active engineering faculty ranges from 2 to 4 courses per year. The supervision of students conducting research, time devoted to the design of new courses, class size[[2]](#footnote-2) and the availability of teaching assistants2 should also be considered in determining the number of courses a faculty member will teach in an academic year.

# Research and Scholarship

To support a continuation and growth in impactful scholarship and research activities by the department’s faculty, the workload should also consider a faculty member’s level of research productivity. Faculty with higher levels of research productivity should be provided a lower teaching load in recognition that higher levels of research productivity require more effort directed towards research activities. Research productively is evaluated based on research outputs and activities that enable research. The main indicator of research productivity is the publication of original research articles in major peer-reviewed journals as described in the department’s RPT guidelines. The preparation and submission of grant applications for competitive external funds is considered an important research enabling activity that will also be considered in determining workloads. Other indicators of research productivity may include, but are not limited to, the publication of books, book chapters, peer-reviewed conference proceedings, patents, the submission of articles to peer reviewed journals, and the acquisition of grants and contracts. Evaluating research productivity on the quantity of products or their quality is exceedingly difficult; therefore, it is incumbent upon individual faculty to provide evidence of the quality of their publications and other possible indicators of research productivity to the department chair as part of the annual review process.

# Quantitative Indicators for Evaluating Annual Teaching Workload

The table below defines five levels of research productivity for tenured and tenure-track faculty in the department based on the number of graduate students supervised and publication of peer-reviewed journal papers. These metrics were chosen as indicators of research productivity because graduate student supervision and publishing are expected from all tenured and tenure track faculty, are relatively simple metrics to track, and broadly measure effort and performance. Other indicators are important for gaining a full understanding of a faculty member’s research effort and productivity. Any additional indicators and supporting information should be documented during the annual review process and will be considered by the chair in determining the final research productivity level used for assigning the annual teaching workload.

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| **Tenure Track Teaching Workload** | **Research Productivity Level** | **General Research Productivity Level Indicators *a* (averaged over past 3 years)** |
| 1+1  ≥ 1 required course | Very High | **6 or more:**   * full-time graduate students *b* ***and*** * peer-reviewed journal publications *c,d* |
| 2+1  ≥ 1 required course | High | **4** **or more:** full-time graduate students *b* ***and***  **3 or more:** peer-reviewed journal publications *c,d* |
| 2+2  ≥ 2 required courses | Moderate | **2** **or more:**   * full-time graduate students *b* ***and*** * peer-reviewed journal publications *c,d* |
| 3+2  ≥ 3 required courses | Low | **1** **or more:**   * full-time graduate students *b* ***and*** * peer-reviewed journal publications *c,d* |
| 3+3  ≥ 4 required courses | Very Low | **Less than 1**:   * full-time graduate students *b* ***and*** * peer-reviewed journal publications *c,d* |
| *a* These indicators are provided as a general reference point for faculty to understand differences in research activity level using two common and relatively easy to track metrics. Many other indicators of research productivity and effort are possible and should be considered by the faculty and department Chair in determining research activity levels.  *b* Number of research-engaged, externally supported (including self-paying), graduate students (project or thesis-based MS or PhD students) supervised by a faculty member. The department recognizes that research-engaged graduate students may also be supported occasionally as graduate teaching assistants to provide teaching opportunities for PhD students, assist in carrying out the department’s teaching mission, to provide temporary support when external funding is unavailable, and through internal awards. Research-engaged graduate teaching assistants, internally funded graduate research assistants, and self-funded graduate students will count towards the number of graduate students in this table provided that a subset of the graduate students are supported through external awards. Co-advised graduate students will generally be counted at a rate of one half; however, the department recognizes that co-advising arrangements take many forms. Faculty members should document their specific role in co-advising graduate students during the annual review process so that an appropriate level of graduate student supervision can be determined.  *c* Other scholarly products may also be considered in this metric. It is incumbent on the faculty member to provide evidence of the quality and impact of other products to the chair for determining their equivalence to the number of peer-reviewed journal publications.  *d* The number of publications includes those where the faculty member or a student they supervise is the lead author. Research collaborations that result in publications with additional (possibly many) authors are encouraged. Many journals now require that authors state the contributions of each author. Faculty should provide the chair with information concerning their contribution to collaborative works to determine an appropriate research productivity level. | | |

1. UVM’s *Our Common Ground* values: <http://www.uvm.edu/president/?Page=miscellaneous/commonground.html> [↑](#footnote-ref-1)
2. Refer to the UVM Department of Civil and Environmental Engineering Course Equivalency Guidelines for further information. [↑](#footnote-ref-2)